AIR PRODUCTS & CONTROLS
INSTALLATION GUIDE FOR
MSR-50 SERIES REMOTE ACCESSORIES

AIR PRODUCTS & CONTROLS

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PRODUCT DESCRIPTION

Air Products & Controls remote accessories provide audio and visual indication as well as remote test/reset functions and are designed to be compatible with all APC's 4 wire Duct Smoke Detectors.

Features:

- The MSR-50 Series features **one** multicolor LED to signal Alarm (Red), Pilot (Green) or Trouble (Off).
- This Series is offered with either **key-operated detector Test/Reset function**, or a **hidden magnet test switch w/ pushbutton reset** (MSR-50RM remotes, single gang only).
- This remote is offered in Decora style plates in **red** or **white**.
- In addition you can add a sounder option, or a sounder & strobe option: these features will be added in a double gang plate with the remote on one side and the add-on placed on the other side.
- Lever-operated quick connect "No-Tools" four-position terminal block.
- Port for plugging in Audio/Visual assembly.

Please refer to *Table 1* below for a description of different products functionalities and combinations.

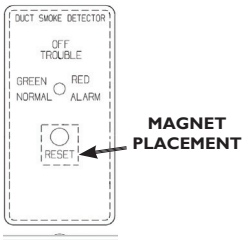


MSR-50RKA/W

Hidden magnet test switch w/pushbutton reset functionality (MSR-50RM)

To put the detector in alarm, place a magnet over the RESET button on the faceplate of the accessory.

The detector will stay in Alarm until the RESET pushbutton is pressed. Also the RESET button can be used to reset a detector-initiated alarm.



***Note**: The MSR-AV, MSR-A and MSR-V are intended for Private Mode Audible and Visual notification only. They are not intended for Public Mode Audible and Visual evacuation and relocation signaling.*
***Remarque**: Le MSR-AV, MSR-A et le MSR-V sont destinés uniquement aux notifications sonores et visuelles en mode privé. Ils ne sont pas destinés à la signalisation visuelle et auditive d'évacuation, ni au signalement de réadressage public.*

***Note**: Any "V" code units come with Strobe Lens decals for optional use. "SMOKE" in blue lettering and "FIRE" in red lettering, 2 each in both vertical and horizontal orientations. All units require one gang of space in a standard deep gang box – not supplied.*
***Remarque**: Toutes les unités de code "V" sont livrées avec des décalcomanies d'objectif stroboscopique pour une utilisation facultative. "SMOKE" en lettres bleues et "FIRE" en lettres rouges, 2 dans chacune des orientations verticales et horizontales. Toutes les unités nécessitent un seul espace dans une boîte de gang profonde standard - non fournie.*

TABLE 1: MSR-50 PART NUMBERS AND FEATURES

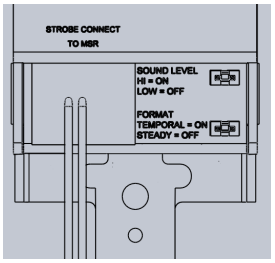
Part number	Description	Key	Test/ reset Button	LED (Red=Alarm, Green= Pilot, Off=Trouble)	Horn	Strobe	White Plate	Red Plate	Size
MSR-50RK/R	Remote Control Assembly w/ Single Gang Cover Plate, Red	X		X				X	4x2
MSR-50RK/W	Remote Control Assembly w/ Single Gang Cover Plate, White	X		X			X		4x2
MSR-50RKA/R	Control w/ Sounder Assembly, Red Double Gang Plate	X		X	X			X	4x4
MSR-50RKA/W	Control w/ Sounder Assembly, White Double Gang Plate	X		X	X		X		4x4
MSR-50RKAV/R/C	Control w/ Strobe & Sounder, Clear Lens, Red Double Gang Plate	X		X	X	X		X	4x4
MSR-50RKAV/W/C	Control w/ Strobe & Sounder, Clear Lens,White Double Gang Plate	X		X	X	X	X		4x4
MSR-50RM/R	Remote Control Assembly w/ Single Gang Cover Plate, Red		X	X				X	4x2
MSR-50RM/W	Remote Control Assembly w/ Single Gang Cover Plate, White		X	X			X		4x2

Installation
To install Sounder/strobe accessories, simply position the three link pins on the strobe assembly (MSR-V) over the three provided plug holes in the Sounder module (MSR-A) front cover and push firmly until the pins are seated and the four snap-in legs on the strobe assembly completely snap-in and latch to the mating surfaces.

Audible Sounder Output Configurations
MSR-AV and MSR-A Modules
The sound output level is selectable at either 83 db (low) or 87 db (high). The unit is shipped pre-set to the higher level. To change the selection to the lower tone simply remove the pre-installed jumper plug where shown (at right).

The sound output format on these units is selectable for Steady Tone or Temporal (Code 3) Pattern. The unit is shipped with the output format programmed for Temporal (Code 3). Simply remove the pre-installed jumper plug where shown (at right) for Steady Tone.

Note: As with all final completed installations, equipment should be completely tested to insure proper functionality.
***Remarque*: Comme pour toutes les installations finales, l'équipement doit être entièrement testé pour s'assurer qu'il fonctionne correctement.**



Rear View of MSR-A Control Unit

Pre-installed Jumpers set output to High Level Sound, Temporal Pattern. Take off the jumper(s) for alternate settings.

MECHNICAL SPECIFICATIONS

Power Requirements:

MSR-50RM

Standby:	08mA@24VDC
Detector Alarm:	25mA@24VDC
Remote Alarm Test with Magnet:	37mA@24VDC
Detector Alarm w/Horn:	45mA@24VDC
Detector Alarm w/Horn & Strobe:	85mA@24VDC
Remote Alarm w/Horn:	45mA@24VDC
Remote Alarm w/Horn & Strobe:	85mA@24VDC
Temperature:	0°C to 49°C (32°F to 120°F)

MSR-50RK

Standby:	08mA@24VDC
Alarm:	25mA@24VDC
Alarm w/Horn:	45mA@24VDC
Alarm w/Horn&Strobe:	85mA@24VDC
Temperature:	0°C to 49°C (32°F to 120°F)

MSR-AV

Standby current:	08mA@24VDC
Alarm current:	72mA@24VDC
Alarm db:	68 db @10 ft (high); 53 db @ 10 ft (low)
Alarm candela:	2.0 on axis
Temperature:	0°C to 49°C (32°F to 120°F)

Dimensions: Single Gang Plate: 4½" (114.3mm)H x 2¾" (69.85mm)W
Double Gang Plate: 4½" (114.3mm)H x 4½" (114.3mm)W

Wiring: 14-28AWG, Solid or Stranded

Approvals: UL Listed for use with Air Products and Controls duct smoke detectors referenced herein including all RW- Series, SM- Series and SL- Series duct smoke detectors. Listings and Approvals shown are for MSR-50RK and MSR-50RM Series ONLY
UL URRQ.S7425 • CSFM 7300-1004:107 • MEA 73-92-E Vol.31

PACKAGE CONTENTS AND STROBE CONSTRUCTION

Remote accessories that include the indicator/control unit are shipped with the following parts:
- Installation Instructions
- Indicator/Control Unit with back box mounting screws (back box not supplied)
- Keys for Test/Reset function (MSR-50RK) OR Magnet for magnet test function (MSR-50RM)
- Decora Style Cover Plate with mounting screws (single gang)

Remote accessories that include the indicator/control unit and sounder module are shipped with the following parts:
- Indicator/Control Unit package
- Sounder Module with back box mounting screws (back box not supplied)
- Decora Style Cover Plate with mounting screws (double gang)

Remote accessories that include the indicator/control unit, sounder module and strobe assembly are shipped with the following parts:
- Indicator/Control Unit package
- Sounder Module package
- Strobe Assembly
- Strobe Lens Decals for optional use: "SMOKE", "FIRE"
  (1 of each version in horizontal orientation plus 1 each vertically set)

WIRING INSTRUCTIONS

⚠ **NOTE:** *For proper installation, testing, operation and maintenance of a duct smoke detector, please refer to the detector installation guide. The following wiring diagrams are applicable only to compatible, current limited, UL Listed remote accessories from Air Products & Controls. Use of any other devices may result in damage to the duct smoke detector or those devices, potential injury, and will void any applicable warranties.*

⚠ **REMARQUE:** *Pour une installation correcte, le contrôle, l'exploitation et l'entretien d'un détecteur conduit de fumée, s'il vous plaît consulter le guide d'installation du détecteur. Les schémas de câblage suivants sont seulement applicables aux accessoires pour commandes A' distance de Air Product & Controls compatibles, a courant limite' et qualifier UL Listed. L'utilisation d'autres appareils peut causer des dommages au détecteur conduit de fumée ou de ces dispositifs, les risques de blessures, et annulera toute garantie applicable.*

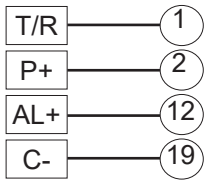
SL-2000-P Duct Smoke Detectors

⚠ **NOTE:** *The trouble LED will extinguish on the MSR-50 when the detector cover is removed, or if the smoke detector head is removed and the cover replaced, indicating a trouble condition as labeled.*

⚠ **REMARQUE:** *La LED de perturbation s'éteint sur le MSR-50 lorsque le couvercle du détecteur est retiré, ou si la tête du détecteur de fumée est retirée et le couvercle remplacé., indiquant une un état de perturbation comme étiqueté.*

⚠ **NOTE:** *If duct smoke detectors are interconnected for common functions, please refer to unit installation guide for connection options for remote alarm functions.*

⚠ **REMARQUE:** *Si les détecteurs de fumée de conduit sont interconnectés pour des fonctions courantes, veuillez vous référer au guide d'installation de l'unité pour les options de connexion pour les fonctions d'alarme à distance.*



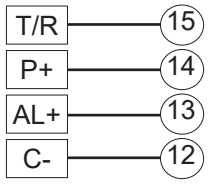
HS-100-P Special Application Duct Smoke Detectors

⚠ **NOTE:** *The trouble LED will extinguish on the MSR-50 if the smoke detector head is removed indicating a trouble condition as labeled.*

⚠ **REMARQUE:** *La LED de perturbation s'éteindra sur le MSR-50 si la tête du détecteur de fumée est retirée, indiquant une un état de perturbation comme indiqué sur l'étiquette.*

⚠ **NOTE:** *If duct smoke detectors are interconnected for common functions, please refer to unit installation guide for connection options for remote alarm functions.*

⚠ **REMARQUE:** *Si les détecteurs de fumée de conduit sont interconnectés pour des fonctions courantes, veuillez vous référer au guide d'installation de l'unité pour les options de connexion pour les fonctions d'alarme à distance.*



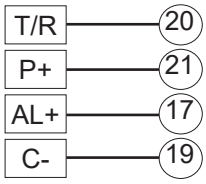
SM-501-P Duct Smoke Detectors

⚠ **NOTE:** *The trouble LED will extinguish on the MSR-50 if the smoke detector head is removed indicating a trouble condition as labeled.*

⚠ **REMARQUE:** *Le voyant de dépannage s'éteindra sur le MSR-50 si la tête du détecteur de fumée est retirée, ce qui indique un problème tel qu'étiqueté.*

⚠ **NOTE:** *If duct smoke detectors are interconnected for common functions, please refer to unit installation guide for connection options for remote alarm functions.*

⚠ **REMARQUE:** *Si les détecteurs de fumée de conduit sont interconnectés pour des fonctions courantes, veuillez vous référer au guide d'installation de l'unité pour les options de connexion pour les fonctions d'alarme à distance.*



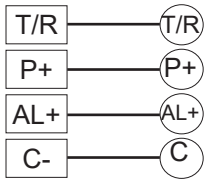
RT-3000-P Duct Smoke Detectors

⚠ **NOTE:** *The trouble LED will extinguish on the MSR-50 when the detector cover is removed, or if the smoke detector head is removed and the cover replaced., indicating a trouble condition as labeled.*

⚠ **REMARQUE:** *La LED de perturbation s'éteint sur le MSR-50 lorsque le couvercle du détecteur est retiré, ou si la tête du détecteur de fumée est retirée et le couvercle remplacé., indiquant une un état de perturbation comme étiqueté.*

⚠ **NOTE:** *The trouble LED will extinguish on the MSR-50 when the detector cover is removed, or if the smoke detector head is removed and the cover replaced., indicating a trouble condition as labeled.*

⚠ **REMARQUE:** *La LED de perturbation s'éteint sur le MSR-50 lorsque le couvercle du détecteur est retiré, ou si la tête du détecteur de fumée est retirée et le couvercle remplacé., indiquant une n état de perturbation comme étiqueté.*



AVAILABLE ACCESSORIES FOR USE WITH AIR PRODUCTS DUCT SMOKE DETECTORS

SMOKE TEST GAS

TG-1000	Solo Aerosol Test Gas with Spray Nozzle
TG-2000	Solo Aerosol Test Gas with Nozzle for SL- Series Test Port

NOTCHED SAMPLING TUBES (SL- SERIES)

STN-1.0	For duct widths of 6" TO 1.0'
STS-2.5	For duct widths of 1.0' TO 2.5'
STN-5.0	For duct widths of 2.5' TO 5.0'
STN-10.0	For duct widths of 5.0' TO 10.0'

SAMPLING TUBES (SM- SERIES)

STN-2.5	For duct widths of 1.0' TO 2.5'
STS-5.0	For duct widths of 2.5' TO 5.0'
STS-10.0	For duct widths of 5.0' TO 10.0'

WEATHERPROOF ENCLOSURES

WP-2000	Weatherproof Enclosure for SL- Series Detectors

POWER SUPPLIES

T-PB 202-1	24VAC @ 4.0A Class II Power Supply
T-PB 202-0	24VAC @ 4.0A Class II Power Supply
T-PB 303-1	24VAC @ 3.0A Class II Power Supply
T-PB 303-0	24VAC @ 3.0A Class II Power Supply

REMOTE ACCESSORIES

MSR-50RM Series Remote Accessory Controllers (Featuring visual pilot and alarm functions, magnet test and pushbutton reset)

MSR-50RM/R	Remote Indicator/Control Assembly; Red Single Gang Cover Plate
MSR-50RM/W	Remote Indicator/Control Assembly;White Single Gang Cover Plate

MSR-50RK Series Remote Accessory Controllers (Featuring visual pilot and alarm functions, keyswitch test and reset)

MSR-50RK/R	Remote Indicator/Control Assembly; Red Single Gang Cover Plate
MSR-50RK/W	Remote Indicator/Control Assembly;White Single Gang Cover Plate

MSR-50RKV Series Remote Accessory Controllers (Featuring smoke automatic fire detector accessory)

MSR-50RKV/R/C	Control w/ Strobe Assembly, Clear Lens,Red Double Gang Plate

MSR-50RKA Series Remote Accessory Controllers with Enhanced Horn (Featuring visual pilot and alarm functions, keyswitch test and reset)

MSR-50RKA/W	Remote Indicator/Control Assembly w/ Audio Assembly;White Double Gang Cover Plate
MSR-50RKA/R	Remote Indicator/Control Assembly w/ Audio Assembly; Red Double Gang Cover Plate

MSR-50RKAV Series Remote Accessory Controllers with Enhanced Horn and Strobe (Featuring visual pilot and alarm functions, keyswitch test and reset)

MSR-50RKAV/W/C	Remote Indicator/Control Assembly w/ Audio/Visual Assembly (Clear Lens);White Double Gang Cover Plate
MSR-50RKAV/R/C	Remote Indicator/Control Assembly w/ Audio/Visual Assembly (Clear Lens); Red Double Gang Cover Plate

MSR-AV Enhanced Horn and Strobe Standalone (Terminals for standalone functionality)

MSR-AV/T/R/C	Audio/Visual Assembly; Red Single Gang Cover Plate
MSR-AV/T/W/C	Audio/Visual Assembly;White Single Gang Cover Plate

PART NUMBER EXPLANATION SERIES	ENHANCED INDICATION	ACEPLATE COLOR	VISUAL STROBE LENS TYPE
MSR-50RM (magnet test and button reset)	A (Audio Horn)	R (Red)	C (Clear)
MSR-50RK (keyswitch test and reset)	V (Visual Strobe)	W (White)	O (opaque)
MSR-AV (Audio Visual only)	AV (Audio Horn & Visual Strobe Combo)		

NOTICE: The information contained in this document is the most current available at the time of shipment of accompanying product, and is subject to change without notice. Future references should always be made to the most current revision of this document. The information contained in all this document should be considered before installing or using the product. Any example applications shown are subject to the most current enforced local/national codes, standards, approvals, certifications, and/or the authority having jurisdiction. All of these resources, as well as the specific manufacturer of any shown or mentioned related equipment, should be consulted prior to any implementation. For further information or assistance concerning this product, contact Air Products & Controls. Air Products & Controls reserves the right to change any and all documentation without notice.
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